

EARLY SPRING EMERGENCE OF MACRO-MOTHS IN 1993

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After a cold and sunny, but frosty Christmas in 1992 the first two months of 1993 were exceptionally mild in the Isle of Wight causing a very early emergence of the spring moths. January was the dulllest month since 1975 and the fifth warmest this century. At Freshwater there was above average rainfall with 97.7 mm and there were only 7 days without rain. The February was the dulllest since 1980, was warm with 1°C above average temperature and was the sixth driest this century and the driest since 1959 with only 7.3 mm of rainfall. There were 23 days without rain. March was colder than the previous 2 months with below average rainfall and above average sunshine. The last day of the month was the wettest with 21.0 mm of rainfall and frost occurred on 5 nights during the month.

Four out of the last five winters have been exceptionally mild and the climate seems to be getting warmer, although whether this is due to 'global warming' requires further debate! Only 1991 had a cold spring and could be classed as an 'average' year. These mild winters, resulting in forward springs, caused the emergence of many species up to a month earlier than usual.

The main difference in emergence in 1993 compared with the previous four years was reflected in various *Orthosia* species: *Orthosia munda* (D & S.) and *Orthosia incerta* (Hufn.) were two weeks earlier, and *Orthosia cerasi* (F.), *Orthosia gothica* (L.) and *Orthosia cruda* (D & S.) were 3 weeks earlier. *Agriopis marginaria* (F.), *Alsophila aescularia* (D & S.) and *Apocheima hispidaria* (D & S.) were more than 2 weeks earlier and *Gymnoscelis rufifasciata* (Haw.) and *Eupithecia abbreviata* (Steph.) were a month earlier than in any of the years from 1989 to 1992. Unlike 1989 and 1990, which were exceptionally warm, March 1993 was quite cold and things quietened down with some species e.g. *Anticlea badiata* (D & S.), *Anticlea derivata* (D & S.) and *Trichopteryx carpinata* (Borkh.) being a few days later in emerging.

The most out-of-season appearance was that of *Deilephila elpenor* (L.) which Simon Colenutt took at Chale Green, Isle of Wight, 3 months early on 16.iii.1993. I expect that this example had bred on fuchsia in some local conservatory and had emerged during the warm March sunshine. He also took *Caradrina clavipalpis* (Scop.) at the same locality on 30.iii.1993.

I should like to mention variations in emergence from two other localities on the south coast namely Sedlescombe, East Sussex and Chandlers Ford, Hampshire. At both localities some species were up to 2 weeks early. In particular Patrick Roper noticed that the season got off to an earlier start at Sedlescombe compared to the Isle of Wight, but by the end of the period the island had caught up and had overtaken him. Here both *Orthosia gothica* (L.) and *Orthosia cerasi* (F.) were about 2 weeks earlier than on the island, the latter being taken as early as 7.i.1993 and *Apocheima pilosaria* (D & S.) was 20 days early. Mr Roper suggested that although the season was a very early one, the cold spell in December and the relative mildness of January 'fooled' a few individuals into thinking it was spring. Most of these early records represent singletons, but the main emergence was much earlier than usual too. Barry Goater recorded *Orthosia incerta* (Hufn.) on 27.i.1993 over three weeks earlier than on the island; *Orthosia cruda* (D & S.) 4 days early and there was an exceptionally early record for *Panolis flammea* (D & S.) on 30.i.1993 which was over 6 weeks early, taken at his home at Chandlers Ford.

Table 1. Comparison of 1993 dates with previous years

Species	Earliest date 1993	Locality	Earliest date 1989-1992
<i>Conistra ligula</i> Esp.	18.i	Freshwater	1.i.92
<i>Conistra vaccinii</i> L.	19.i	Binstead	16.i.90
<i>Orthosia cerasi</i> F.	22.i	Binstead	15.ii.89
<i>Scoliopteryx libatrix</i> L.	23.i	Freshwater	17.iii.90
<i>Agriopsis leucophaearia</i> D & S.	25.i	Binstead	5.ii.92
<i>Theria primaria</i> Haw.	25.i	Queen's Bower	7.ii.90
<i>Apocheima pilosaria</i> D & S.	27.i	Queen's Bower	7.ii.91
<i>Xylocampa areola</i> Esp.	28.i	Freshwater	3.ii.92
<i>Agriopsis marginaria</i> F.	29.i	Queen's Bower	17.ii.91
<i>Orthosia gothica</i> L.	29.i	Queen's Bower	21.ii.90
<i>Alsophila aescularia</i> D & S.	29.i	Binstead	16.ii.90
<i>Biston strataria</i> Hufn.	29.i	Freshwater & Binstead	12.ii.92
<i>Eupsilia transversa</i> Hufn.	31.i	Freshwater	27.ii.90
<i>Orthosia cruda</i> D & S.	1.ii	Binstead	26.ii.92
<i>Gymnoscelis rufifasciata</i> Haw.	6.ii	Freshwater	6.iii.90
<i>Lithophane ornitopus</i> Hufn.	11.ii	Binstead	22.ii.92
<i>Cerastis rubricosa</i> D & S.	11.ii	Binstead	—
<i>Eupithecia abbreviata</i> Steph.	15.ii	Binstead	17.iii.90
<i>Ectropis bistortata</i> Goeze.	15.ii	Firestone Copse	7.iii.90
		Havenstreet, at dusk	
<i>Orthosia munda</i> D & S.	16.ii	Binstead	2.iii.90
<i>Selenia dentaria</i> F.	17.ii	Freshwater	23.ii.90
<i>Apocheima hispidaria</i> D & S.	18.ii	Binstead	6.iii.91
<i>Orthosia incerta</i> Hufn.	18.ii	Freshwater	3.iii.92
<i>Anticlea badiata</i> D & S.	5.iii	Firestone Copse	1.iii.90
		Havenstreet, at dusk	
<i>Archiearis parthenias</i> L.	9.iii	Firestone Copse	—
		flying in sunshine	
<i>Achlya flavicornis</i> L.	11.iii	Binstead	27.ii.92
<i>Phlogophora meticulosa</i> L.	13.iii	Firestone Copse & Niton	4.i.92
<i>Panolis flammea</i> D & S.	16.iii	Binstead	18.iii.92
<i>Deilephila elpenor</i> L.	16.iii	Chale Green	—
<i>Anticlea derivata</i> D & S.	20.iii	Combley Great Wood	26.iii.90
		Havenstreet, at dusk	
<i>Trichopteryx carpinata</i> Borkh.	21.iii	Firestone Copse & Chale Green	17.iii.90
<i>Lithophane semibrunnea</i> Haw.	21.iii	Freshwater	3.iii.92
<i>Caradrina clavilpalpis</i> Scop.	30.iii	Chale Green	—

Total number of species recorded = 33.

All specimens were recorded at mercury vapour light unless stated otherwise.

A dash indicates that the species was not taken between 1989 and 1992.

Total number of species recorded on the Isle of Wight between 1989 and 1993 = 51.

Southerly winds blew in early February but there were no records of any migrants during this period.

In comparison the emergence of the spring butterflies was about 3 weeks later than in the very forward year of 1990 with the first *Pararge aegeria* (L.) and *Pieris brassicae* (L.) being observed at Ryde on 6.iv.1993. Amongst the hibernating butterflies, a very early *Vanessa atalanta* (L.) was seen by Simon Colenutt flying in the sunshine at Chale Green on 18.i.1993. This butterfly may have been disturbed

from hibernating quarters, perhaps suggesting that it does hibernate in this country during very mild winters. *Aglais urticae* (L.) and *Inachis io* (L.) were seen on one of the few sunny days in February on the 13th at Freshwater.

This was certainly an exceptional winter, with daffodils out during mid-December 1992 at Mottistone, Isle of Wight, and during mid-January at Freshwater. The hedges were green by the end of March and of the trees, the horse chestnut was well out by this time.

Brian Warne recorded a total of 113 macro-moths of eleven species at mercury vapour light on 5.iii.1993 at Binstead, quite a remarkable total for that time of year. The colder month of March put a damper on a very early spring, but the first 2 months will be especially remembered for the exceptional early emergence of many moth species.

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REFERENCE

- Knill-Jones, S. A. 1991. A comparison of the early spring emergence of the macro-moths 1989-1991 taken at Freshwater, Isle of Wight at Mercury Vapour Light. *Br. J. Ent. Nat. Hist.* 4: 129-131.

BOOK REVIEWS

Larger moths of the London area, by C. W. Plant, London, LNHS, 1993, 314 pages, £19.95, hardback.—This long awaited volume on the moths of London, has been well worth the wait that it has taken to compile the records and blend them into a comprehensive work.

The book opens with a foreword by Bernard Skinner. There then follows an introduction which discusses the geology of the area, moth habitats in London, past recording, the present work and the validation of records. The next few pages are devoted to an introduction to the species accounts which is divided into eighteen sections and cover immigrants, vagrants, local residents, larval foodplants etc. There then follows a list of sources and abbreviations with acknowledgements being the last page of 'prelims' before the work proper begins. Two-hundred and twenty-two individual entomologists, 11 Natural History Societies, Museums, Conservation units etc are listed who supplied records for this work.

The area covers Middlesex, and parts of Hertfordshire, North Essex, Buckinghamshire, South Essex, Surrey and West Kent.

The 715 macrolepidoptera recorded are divided species by species into number according to Bradley & Fletcher (1986) followed by the Latin name of the insect with subspecific name, English name and dates from first record to 1990 or later. There is a short comment on how local, rare or common the species is and its status as resident, migrant etc. There is also a description of the food plant, a map of the species distribution, how it can be recorded and what type of locality it prefers. For less common species, the names of the persons who discovered the insect are given. The